

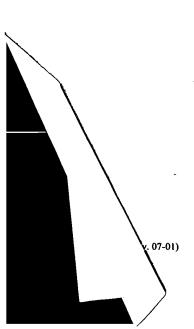


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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
08/938,173	09/26/1997	ALEXANDER BROCKHOFF	P61957	2574	
759	90 12/31/2002				
BECK & TYSVER, PLLP			EXAMINER		
2900 Thomas A Suite 100	venue S.		KIM, S	KIM, SUN U	
Minneapolis, MN 55416			ART UNIT	PAPER NUMBER	
		,	1723	40	
			DATE MAILED: 12/31/2002	DATE MAILED: 12/31/2002	

Please find below and/or attached an Office communication concerning this application or proceeding.



Application No.

Applicant(s) 08/938,173

**Brockhoff** 

## Office Action Summary

Examiner

Art Unit John Kim 1723

The MAILING DATE of this communication appears on the cover sheet with the correspondence address					
Period f	or Reply				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.					
- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.					
- If NO p - Failure - Any rej	eriod for reply specified above is less than thirty (30) days, a reply within the reriod for reply is specified above, the maximum statutory period will apply a to reply within the set or extended period for reply will, by statute, cause th ply received by the Office later than three months after the mailing date of the patent term adjustment. See 37 CFR 1.704(b).	nd will expire SIX (6) MONTHS from the mailing date of this communication. e application to become ABANDONED (35 U.S.C. § 133).			
Status					
1) 💢	Responsive to communication(s) filed on Oct 23, 20	002 .			
2a) 🗌	This action is <b>FINAL</b> . 2b) 💢 This action	on is non-final.			
3) 🗌	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11; 453 O.G. 213.				
Disposition of Claims					
4) 💢	Claim(s) 22, 23, and 30	is/are pending in the application.			
		is/are withdrawn from consideration.			
5) 🗆	Claim(s)	is/are allowed.			
6) 💢	Claim(s) 22, 23, and 30	is/are rejected.			
7) 🗆	Claim(s)	is/are objected to.			
8) 🗆	Claims	are subject to restriction and/or election requirement.			
Application Papers					
9) The specification is objected to by the Examiner.					
10) ☐ The drawing(s) filed on is/are a) ☐ accepted or b) ☐ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
11)	The proposed drawing correction filed on	is: a) $\square$ approved b) $\square$ disapproved by the Examiner.			
	If approved, corrected drawings are required in reply t	to this Office action.			
12) The oath or declaration is objected to by the Examiner.					
•	under 35 U.S.C. §§ 119 and 120				
13)	Acknowledgement is made of a claim for foreign pr	iority under 35 U.S.C. § 119(a)-(d) or (f).			
a) All b) Some* c) None of:					
1. Certified copies of the priority documents have been received.					
	2. $\square$ Certified copies of the priority documents hav	e been received in Application No			
	<ol> <li>Copies of the certified copies of the priority de application from the International Buresee the attached detailed Office action for a list of the</li> </ol>				
14)					
<ul> <li>14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).</li> <li>a) ☐ The translation of the foreign language provisional application has been received.</li> </ul>					
15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.					
Attachment(s)					
1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s).					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) Notice of Informal Patent Application (PTO-152)			
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)					

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- Claims 22-23 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 1. Patent No. 5,824,212 (hereinafter referred to as Brockhoff). Brockhoff teaches a method of using cyclone apparatus comprising a housing having an input channel (2) and an outlet channels (10, 12) being concentric along a housing axis arranged in following order: an input channel (2), chamber section, eddy chamber (16), an outlet channel (10, 12), an insert body (8) in chamber section and extending into the eddy chamber, at least one helical rib (26) extending between the insert body (8) and an interior wall of the chamber section forming a helical grooves (24) and a gas outlet (12) located along the axis in the eddy chamber and a liquid outlet (10) near the center axis of the flow wherein helical groove can have constant cross sectional area as well as decreasing cross-sectional area from the input channel (2) toward the outlet channel (10, 12) and helical grooves (24) have either fixed or variable pitches and eddy chamber (16) has a cross sectional that gradually increases toward the gas outlet (12) (see figures 1-4; col. 2, line 57 - col. 3, line 58).
- 2. Applicant's arguments with respect to claims 22-23 and 30 have been considered but are moot in view of the new ground(s) of rejection.
- 3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is (703) 308-2350. The examiner can normally be reached on weekdays from 7:00 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for official response



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after final action is (703) 872-9311, and the fax phone number for all other official faxes is (703) 872-9310.

When sending a draft amendment by fax, please mark the paper as "DRAFT"; otherwise, mark the paper "OFFICIAL". This will expedite the processing of the paper.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

John Kim Primary Examiner Art Unit 1723

J. Kim December 27, 2002